

January 7, 1992

Marshal Sydney A. Goldberg  
United States Marshals Service  
303 Federal Building and U.S. Courthouse  
Kennedy Plaza  
P.O. Box 1524  
Providence, Rhode Island 02901

Dear Marshal Goldberg:

This responds to your letter of November 4, 1991 requesting formal consultation pursuant to Section 7 of the Endangered Species Act of 1973, Public Law 93-205, as amended (ESA). This constitutes the biological opinion of the U. S. Fish and Wildlife Service on the Marshals Service's proposal to dispose of 23 acres of land known as Great Harbor Neck on Block Island, Rhode Island. This parcel, also known as Gunners Hill or the Beane property, recently came into the possession of the U. S. Marshals Service following its forfeiture under the National Asset Seizure and Forfeiture Act.

The U. S. District Court for the District of Rhode Island has issued an Order for the "Terms of Sale" of this property (Attachment 1). Conditions specified in the court order which are pertinent to this biological opinion include: 1) the property will be sold on the open market not through auction; and 2) the property will be sold as one entire parcel defined by the metes and bounds land description, in the land evidence records, Town of New Shoreham.

Informal consultation between the Fish and Wildlife Service (FWS) and the Marshals Service relative to this action began in early 1991. On February 1, 1991, representatives of the FWS, Senator Chafee's office and The Nature Conservancy met with Marshal Wyatt and a staff member regarding the procedures for disposing of the property and the desire of the environmental community to protect the area's natural resource values. At that time, the FWS also identified the need to conduct a more thorough biological inventory of the parcel. In May 1991, the FWS organized a site visit and resource inventory involving members from several state, Federal and private conservation organizations. Additional field surveys were conducted by the FWS (and state and private cooperators) in June 1991 and by the RI Natural Heritage Inventory and Division of Fish and Wildlife in August 1991. In a letter to Marshal Wyatt dated July 18, 1991, the FWS informed the Marshals Service that the parcel provided nesting habitat for several species of migratory birds including two pairs of the uncommon American oystercatcher and

Block Island's only black-crowned night heron rookery (15 pairs). This letter also advised the Marshals Service that June 1991 survey efforts had documented the occurrence of an endangered American burying beetle (*Nicrophorus americanus*) and that the property may also have potential value as habitat for the threatened piping plover (*Charadrius melodus*) and the threatened northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*). Further correspondence occurred on July 22, 1991, and on October 24, 1991 we notified the Marshals Service of their responsibilities relative to the Endangered Species Act and Migratory Bird Treaty Act. A November 4, 1991 telephone conversation between Michael Amaral, FWS Endangered Species Biologist, and Dennis Malloy, Deputy U.S. Marshal clarified the Section 7 consultation process. Also on November 4, 1991, we received the Marshals Service's request to initiate formal consultation. The 90-day formal Section 7 consultation period began on November 4, 1991, the date your request was received.

Based on the preceding informal consultations and biological data gathered in 1991, the FWS determined that the proposed disposition of this parcel may adversely affect Federally protected threatened and endangered species. This "may adversely affect" determination is based on two aspects of the proposed sale. The first pertains to the fact that through the consultation requirements set forth in Section 7 of the ESA, threatened and endangered species are afforded a greater measure of protection when they and their habitat occur on land under Federal ownership, management or oversight authority. The action of removing from Federal ownership, habitat that supports an endangered species, therefore, removes substantive protection afforded these species through the Section 7 consultation process. A second adverse result of the proposed sale is that the habitat values of the parcel could be lost or degraded if the property is developed or otherwise substantially altered from its present condition.

The threatened and endangered species of interest in this consultation include the threatened piping plover, the threatened northeastern beach tiger beetle, and the endangered American burying beetle (*Nicrophorus americanus*). Because the former two species are currently extirpated from Block Island, the American burying beetle is the primary focus of this biological opinion.

#### Piping Plover

The piping plover is a small Nearctic shorebird. The East Coast population of the piping plover was listed as a threatened species in January 1986. Along the Atlantic coast, the plover nests on beaches above the high tide line, on coastal sand flats, on gently sloping foredunes and in blowout or washover areas within sand dunes (U.S. Fish and Wildlife Service 1988). Adult birds lead their precocial chicks to forage along the seaweed wrack line, and to nearby intertidal areas and mudflats, where they feed on invertebrates. During nest establishment, incubation and brood rearing, piping plovers are very susceptible to human disturbance. In general, nesting plovers are more likely to be successful in locations where human presence, unleashed pets and vehicular traffic are restricted.

There are historical records of piping plovers occurring on the beaches in the vicinity of Great Harbor Neck, but plovers do not currently nest there or elsewhere on Block Island. The

Department of the Interior has the authority pursuant to Section 4 of the ESA, to designate critical habitat for the Atlantic coast population of the piping plover. However, no habitat on Block Island is currently under consideration for critical habitat designation.

The coastal portions of Great Harbor Neck have the potential to support nesting and feeding piping plovers in the future, should this species continue to increase from its current depressed population levels and reoccupy former nesting beaches. While the parcel does have potential value to the recovery effort for this species, it is not essential for the species continued existence. **It is therefore, the biological opinion of the service that the proposed land disposal is not likely to jeopardize the continued existence of the threatened piping plover.**

#### Northeastern Beach Tiger Beetle

This tiger beetle historically occurred on ocean beaches throughout much of the northeastern United States, with disjunct populations occurring in Chesapeake Bay (U.S. Fish and Wildlife Service 1991a). It was listed as a threatened species in October 1990. Critical habitat has not been designated for this species.

The northeastern beach tiger beetle is a day- and night-active predaceous insect with narrow habitat requirements. Adults and larvae undergo their entire 2-year life cycle on broad, sandy beaches that have low human disturbance. Larvae live in shallow burrows which they excavate in the upper intertidal zone of the beach. The primary food of larva is sand fleas (amphipods), which can be quite numerous in wet sand and under the seawrack. Adults may occur in burrows or upon the surface, actively engaged in courtship, mating, foraging, dispersal and other behaviors.

Historical records indicate that the northeastern beach tiger beetle formerly occurred on the eastern shore of Block Island at or near Crescent State Beach. The only currently known occurrence of the northeastern beach tiger beetle in New England is on Martha's Vineyard, Massachusetts. In May, June, and August 1991, visits to the Great Harbor Neck property were made by Service, and Rhode Island Natural Heritage Inventory and Division of Fish and Wildlife personnel. No northeastern beach tiger beetles were observed at Great Harbor Neck or elsewhere on Block Island (FWS files and C. Raithel, RI Division of Fish and Wildlife, in litt., 1991). Like the piping plover, the tiger beetle is currently extirpated from Block Island. While the Great Harbor Neck property has potential value to this threatened species is a possible future reintroduction site, it is not essential to the survival or recovery of the species. **It is therefore our biological opinion that the disposal of the property as planned is not likely to jeopardize the continued existence of the northeastern beach tiger beetle.**

#### American Burying Beetle

##### Status and Life History

At 1-1.5 inches in size, the American burying beetle is the largest North American carrion beetle of the genus *Nicrophorus* (Order Coleoptera, Family Silphidae). It was once widely distributed throughout eastern temperate North America from at least 150 counties in 35 states and three Canadian provinces (U.S. Fish and Wildlife Service 1991b). The species is now confined to only two widely separated populations rangewide, Block Island off the southern coast of Rhode Island and several counties in eastern Oklahoma.

The life history of the American burying beetle has been described by Schweitzer and Master 1987, Kozol et al. 1988 and Kozol 1990. On Block Island, these nocturnal beetles are active during warm evenings when temperatures remain above 60° F. They actively search for carrion upon which they feed and require for successful reproduction. When a carrion item of appropriate size is located, a male and female beetle will bury it by excavating the soil out from beneath the carcass. Working together, a pair of American burying beetles can completely bury a robin or chipmunk sized carcass by daybreak. Once underground, the female beetle will lay eggs near the carcass and one or both adults remain with the subsequent larvae providing parental care until larval development is complete. The high level of parental care exhibited by the American burying beetle and others of this group is very rare among non-social insects. It is this facet of their life history that has most fascinated scientists and as a result, there is a considerable body of literature available on these species. Young adults overwinter in the soil and most probably breed for the first and only time the following June or July. The American burying beetle is considered an annual species with a life span of 12 months (U.S. Fish and Wildlife Service 1991b).

The Block Island population of the American burying beetle has been censused four times since 1986 by A. Kozol of Boston University, with the assistance of private and state cooperators. The size of the population in the three main study areas on south Block Island is considered to be 375-500 individuals and currently appears stable. About 600 acres of habitat encompassing the prime areas of occurrence for this species on Block Island have been protected through the efforts of state and private conservation organizations, and residents of Block Island.

In eastern Oklahoma, the American burying beetle occurs in lower densities but across a much more widespread area encompassing several counties. No population estimate is available but with 207 beetles encountered during census efforts by one researcher during 1991, it is reasonable to assume that the Oklahoma population is much larger than that of Block Island. Critical habitat has not been designated for this species in Rhode Island or Oklahoma.

#### Habitat and Other Requirements

While the reasons causing the rangewide decline of the American burying beetle are not fully understood, some of the essential factors comprising burying beetle habitat are known. These include a well developed soil layer; vegetative cover such as grassland, forest or shrub thickets; the presence of small birds or mammals (carrion source); and reduced competition from carrion-seeking scavengers such as skunks, raccoons, fox, opossum, etc., which compete directly with burying beetles for this food source. Mobility is essential for species like carrion beetles, which depend on a discrete food source that is unpredictable and patchy in distribution. American burying beetles are known to be capable flyers and are considered highly mobile. One marked individual on Block Island was released and recaptured over a mile away two hours later (Andrea Kozol, Boston University, pers. comm.). While non-breeding individuals may be able to exploit carrion in a number of different habitat types, such as beaches, sand dunes or wetlands, it is presumed that pairs attempting to bury carrion

for reproductive purposes require friable soil. In this regard, Kozel (1986) reported that habitats with predominantly sandy soils should be excluded from surveys since *Nicrophorus* spp. are unable to bury prey in this type of soil. Therefore, areas characterized by soils that are either too xeric (dry), unconsolidated such as sand, or water saturated are presumed unsuitable for reproductive purposes.

#### Survey Efforts at Great Harbor Neck

On May 3 and 4, 1991, ten baited pitfall insect traps were set at the former Beane property on Block Island. While no American burying beetles were captured, this survey was considered inconclusive, since evening temperatures dipped into the 40\*s and the species is much more active later in the season when nighttime temperatures are higher.

On June 20 and 21, 1991, seven baited pitfall traps were again set on the Beane property by the FWS and state and private cooperators. This trapping interval, the third week of June, is considered the optimum time to survey for this species on Block Island (Kozel 1991). While no American burying beetles were captured during this second trapping attempt, several other carrion beetles were (24 individuals of 3 species), indicating that conditions (bait, wind, temperature) were favorable for the trapping effort. However, on June 20 an adult female American burying beetle was observed at the property in the vicinity of the cottage on a dead herring gull duck which had been removed from the beach and placed along the trap line by RI Division of Fish and Wildlife personnel. The specimen was positively identified by A. Kozel (Boston University), and C. Raithel (RI Division of Fish and Wildlife) and was photographed by FWS prior to release. Importantly, the beetle had begun to prepare the gull carcass for burial and had succeeded in partially burying it when discovered. Although no mate was found, observation of an adult female attempting to bury a carcass suggests that there is indeed some suitable "breeding" habitat available for this species at the Beane property and that small numbers of beetles do occur there.

#### Relative Importance of Great Harbor Neck

Burying beetles are not evenly distributed on Block Island. In 1985, Schweitzer and Master tested the hypothesis that carrion from the gull colony on northern Block Island is important to the American burying beetle. They tethered carcasses and placed bait and blacklight stations at locations in northern and southern portions of the island. During this study, no American burying beetles were detected at the ten carcasses and six bait stations at the north end of the island, while several American burying beetles were observed at carcasses, bait and blacklight, stations on south Block Island.

During trapping efforts (76 trap nights) at five locations on the north end of Block island in 1986 and 1989, only two American burying beetles were captured (Kozel in litt. 1991). On the same date that the Beane property was surveyed in 1991 (June 20) 20 pitfall traps were also set in the primary habitat of occurrence on south Block Island. While a single specimen was observed at the Great Harbor Neck property, 120 American burying beetles were captured on the night of June 20, 1991 at the south Block Island primary study area. As Kozel (1990) points out, while it

is possible to capture *Nicrophorus* individuals on the north end of Block Island, they are much more abundant on the southern end (i.e., south of Great Salt Pond). Thus, the greater relative importance of the south portion of Block Island is well supported by the field studies and observations of several researchers.

Based on the preceding discussion, it is apparent that Great Harbor Neck is north of the area on Block Island known to support the greatest concentrations of the American burying beetle. Evaluation of the soil types present within the 23 acre parcel indicate that about 45 percent of the area consists of beaches, and level or depressional sand dunes stabilized by vegetation (U.S. Dept. of Agriculture 1981). These soil types are unsuitable as breeding habitat for *Nicrophorus* burying beetles. The remaining estimated 55 percent of the property consists of Paxton very stony sandy loam (U.S. Dept. of Agriculture 1981), a soil type that may be suitable for burial by *Nicrophorus spp.* Interestingly, these soil types are not represented in the areas of southern Block Island where the beetle is known to occur in greatest densities. There, Hinckley gravelly sandy loam and Gloucester-Bridgehampton complex are the predominant soils present (U.S. Dept. of Agriculture 1981).

#### Effects of the Action and Biological Opinion

Notwithstanding the fact that the former Beane property is well north of the area of primary occurrence for the species on Block Island and that a significant portion of the parcel is unsuitable as breeding habitat for the beetle, individual *Nicrophorus americanus* do occur there. It is our responsibility in this opinion to review the status of the species, and to evaluate both the direct and indirect effects of the proposed action (sale) on this species. As previously stated, the act of removing this habitat from federal ownership diminishes the added protection afforded threatened and endangered species through Section 7 of the ESA, *which only* applies to actions *which* are funded, authorized or undertaken by federal agencies. Once in private or non-federal public ownership, only the provisions of Section 9 of the ESA apply. Section 9 states that it is unlawful for any person subject to the jurisdiction of the United States to "take" an endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Harm is further defined as an act that may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

The portion of the property which has soil suitable for the American burying beetle (Paxton sandy loam) is also that area most likely to be at least partially developed if the parcel is sold to other than a conservation organization. Such a sale could result in minor loss of available habitat if the parcel was kept intact and development were limited to driveway improvements and renovations to the existing dwelling, or a greater loss of available habitat if the parcel were subdivided and several dwellings and additional access roads constructed.

Based on a review of all information available to us, it is the biological opinion of the U.S. Fish and Wildlife Service that the proposed disposition of the Great Harbor Neck property is not likely to jeopardize the continued existence of the American burying beetle. This opinion is based on the following information: the parcel contains habitat which supports relatively few beetles;

larger areas of greater importance on south Block Island have been protected through acquisition, easements, and development restrictions; the Block Island population has been relatively stable during the past five years; and 1991 survey efforts in eastern Oklahoma revealed that the species is more widespread and occurs in greater numbers there than was previously known.

#### Incidental Take

Section 9 of the ESA, as amended, prohibits any taking (refer to definition in "Effects of the Action and Biological Opinion" section) of any listed threatened or endangered species without a special exemption. Under the terms of Section 7(b)(4) and Section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered taking within the bounds of the Act provided such taking is in compliance with the following incidental take statements.

If the subject parcel is sold and developed, individual American burying beetles may be "taken" by routine site preparation and construction practices, such as driveway construction, foundation excavation, water and septic system installation, and landscaping activities. While it is not possible to accurately estimate the number of beetles which may be harmed through the sale and development of the parcel, based on the 1991 survey efforts and the low trapping success for this species elsewhere on the north end of Block Island, we anticipate that four American burying beetles, or their eggs or larvae, could be taken (killed) as an indirect result of the proposed land sale. While the level of take and the loss of peripheral habitat for this species is considered well below the threshold which would jeopardize the continued existence of the species, the following reasonable and prudent measures which are necessary and appropriate to minimize or avoid this take must be observed in order to be exempt from the prohibitions of Section 9 of the ESA:

- As a condition of the sale, site work (i.e., driveway construction, foundation and septic system excavation) will be scheduled to avoid the burying beetle breeding season (June, July and August). This will minimize the possibility of disturbing one or more broods of burying beetles. A brood may contain as few as three or as many as 30+ individuals (Kozol in U.S. Fish and Wildlife Service 1991).

- As a condition of the sale, representatives of the Fish and Wildlife Service and/or our state and private conservation agency cooperators will be permitted seasonal access to the property (June - August) for the purpose of conducting surveys for American burying beetles. Depending on the disposition of the property and subsequent development plans, American burying beetles captured on the parcel may be removed and released elsewhere on Block Island.

- A copy of this biological opinion will be included among the documents made available for review by all potential buyers of the parcel, and shall be provided among the legal terms and conditions of sale.

**U.S. Marshal Service compliance with the preceding conditions does not exempt future landowners from the prohibitions of Section 9 of the ESA. Future owners of the property must contact the Fish and Wildlife Service regarding development plans and prior to any ground breaking construction.**



This concludes formal consultation on this action. Reinitiation of formal consultation is required if the amount of incidental take is exceeded, if new information reveals effects of the action that may impact listed species in a manner or to an extent not considered in this opinion, if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, or if a new species is listed or critical habitat designated that may be affected by the action.

The 17WS maintains a strong interest in acquiring or otherwise protecting this property for its fish and wildlife resource values. We will continue to work with cooperators in The Nature Conservancy and Senator Chafee's office toward an appropriation of the necessary funds. In the interim, please keep us informed relative to your efforts to obtain a buyer for the parcel. Questions and further consultation regarding this matter can be referred to Michael Amaral, Endangered Species Specialist, at the above address, telephone: 603/225-1411, FTS 834-4411.

Sincerely yours,

Gordon E. Beckett  
Supervisor  
New England Field Offices

Attachment

cc: Sen. John Chafee's Office, Providence  
Sen. Claiborne Pell's Office, Providence  
D. Wolkoff, TNC  
C. Raithel, RIDFW  
K. Lewis, RI TNC  
A. Kozol, Boston U.  
K. Frazier, FWS R-2  
J. Dowhan, FWS-CEP  
P. Nickerson, RO-SE  
RO/FWE Reading File  
FWE:MAmaral:1-6-92:834-4411

### Literature Cited

- Kozol, A.J. 1986. Distribution and Natural History of the American burying beetle, *Nicrophorus americanus*, on Block Island, RI. Department of Biology, Boston University. Unpublished report. 17 pp.
- Kozol, A.J., M.P. Scott, and J.F.A. Traniello. 1988. The American burying beetle, *Nicrophorus americanus*: studies on the natural history of a declining species. *Psyche*. 95:167-176.
- Kozol, A.J. 1990. The natural history and reproductive strategies of the American burying beetle, *Nicrophorus americanus*. Report prepared for the U.S. Fish and Wildlife Service. 15 pp.
- Kozol, A.J. 1991. Annual monitoring of the American burying beetle on Block Island. Unpublished report to The Nature Conservancy. 15 pp.
- Schweitzer, D.F. and L.L. Master. 1985. Investigations of the Distribution of *Nicrophorus americanus* on Block Island, RI During The Summer of 1985. Unpubl. report by The Nature Conservancy. 4 pp.
- Schweitzer, D.F. and L.L. Master. 1987. *Nicrophorus americanus*: results of a global status survey. The Nature Conservancy, Eastern Heritage Task Force, 294 Washington Street, Boston, MA. 13 pp.
- U.S. Department of Agriculture, Soil Conservation Service. 1981. Soil Survey of Rhode Island. USDA and RI Agricultural Experiment Station public. 200 pp.
- U.S. Fish and Wildlife Service. 1988. Atlantic Coast Piping Plover Recovery Plan. U.S. FWS, Newton Corner, MA. 77 pp.
- U. S. Fish and Wildlife Service. 1991a. Preliminary Draft Recovery Plan for the Northeastern Beach Tiger Beetle (*Cicindela dorsalis dorsalis*). U.S. FWS, Newton Corner, MA. 31 pp.
- U.S. Fish and Wildlife Service. 1991b. American Burying Beetle (*Nicrophorus americanus*) Recovery Plan. Newton Corner, MA. 80 pp.